

LOTUS SILVER

Gemstone Report

To love beauty is to see light.

- Victor Hugo

104.18_{ct}

(total)

Natural Sapphire
Sri Lanka (Ceylon)

Report N° 4291-3797
29 September 2023



LABORATORY FINDINGS

29 September 2023

01

Item

15 loose stones

05

Color

Daylight Hue **Blue**
Saturation **Rich to Medium**
Tone **Medium**

02

Weight

104.18 carats (total)

06

Shape

Antique Cushion

03

Dimensions

See pp. 4–5 for details

07

Cutting Style

Faceted
Crown **Brilliant, Modified Brilliant**
Pavilion **Step**

04

Transparency

Transparent

08

Enhancements

H

This report is a professional opinion based on the results of a series of scientific tests, coupled with the combined decades of experience of Lotus gemologists.

NATURAL SAPPHIRE

Report No. 4291-3797

Identity → **Natural Sapphire**



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Origin

Sri Lanka (Ceylon)

Known in the past variously as Serendib or the “Isle of Jewels,” Sri Lanka has produced fine gems for over 2500 years, including many of the world’s finest rubies, sapphires and spinels.

Notes

- ▷ See page 5 for a larger image.
- ▷ Suites of matched gems such as this are exceptionally rare. See pages 8–9 for more details.

Verify this report by referencing Report No. 4291-3797 with PIN No. 195977 at LotusGemology.com.

NATURAL SAPPHIRE

Report No. 4291-3797

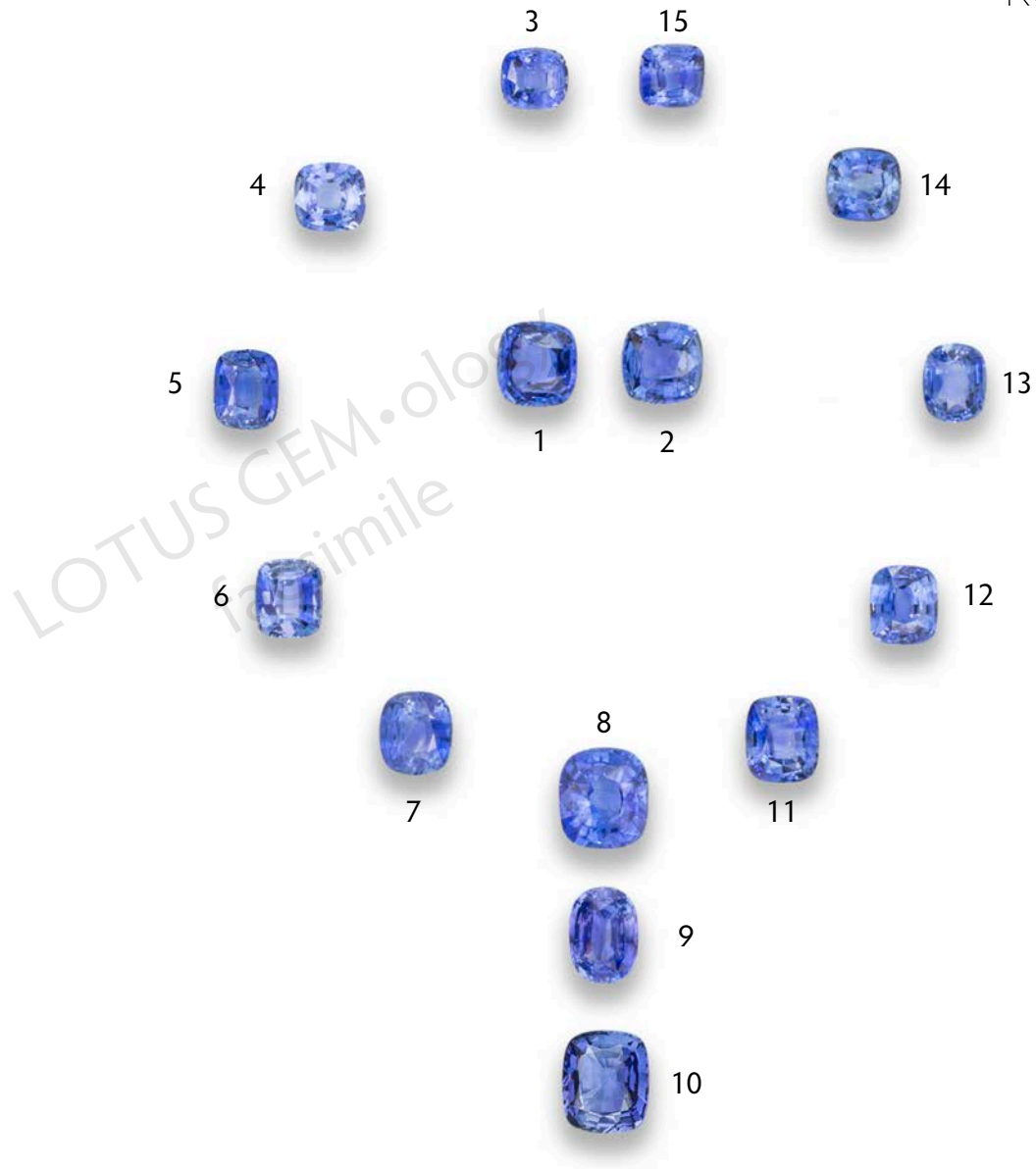
All 15 blue stones were tested. Weights and measurements of the stones are provided below. The total weight of all stones is 104.18 ct.

Stones with an asterisk (*) qualify for the "Cornflower Blue" color type.

1.	9.68 ct	12.33 x 11.52 x 6.91 mm*	9.	7.25 ct	12.88 x 9.17 x 6.38 mm*
2.	8.08 ct	11.98 x 11.76 x 6.58 mm*	10.	9.64 ct	13.79 x 11.78 x 5.96 mm
3.	4.70 ct	9.72 x 8.99 x 6.02 mm*	11.	7.83 ct	12.29 x 10.55 x 6.67 mm*
4.	4.77 ct	10.22 x 9.88 x 5.35 mm*	12.	6.03 ct	11.35 x 9.79 x 5.74 mm*
5.	5.95 ct	11.52 x 9.50 x 5.71 mm*	13.	5.02 ct	11.29 x 9.15 x 5.27 mm*
6.	6.45 ct	11.39 x 9.71 x 6.18 mm*	14.	5.98 ct	10.64 x 10.49 x 6.37 mm
7.	6.24 ct	11.93 x 10.45 x 5.77 mm*	15.	4.27 ct	9.31 x 9.17 x 5.83 mm*
8.	12.29 ct	14.23 x 12.60 x 7.91 mm*			

NATURAL SAPPHIRE

Report No. 4291-3797



ORIGIN SRI LANKA

Island of Gems



THE TEARDROP-SHAPED ISLAND now known as Sri Lanka is one of the planet's richest sources of gems. Over the millennia it has gone by a bewildering variety of names. Locally, it was termed Sinhala or Lanka, while in the Bible, it was Orphir. The Greeks referred to it as Taprobane, while Arabs called it Serendib or Zeylan; it was Seilan to Marco Polo and Ceilao to the Portuguese; Zeilan to the Dutch, and finally, Ceylon to the British. The English word "serendipity," the faculty of making fortunate discoveries by accident, was coined with Sri Lanka in mind by 18th Century English writer, Horace Walpole. But whatever name it's gone by, it has always been famed for its abundance of precious stones. Indeed, it is often referred to in Sanskrit as *Ratna Dweepa* – The Island of Jewels.

For over 2000 years Sri Lanka has supplied the world with fine rubies and sapphires. In fact, Sri Lanka was most probably the original source of these gems. Burma may produce finer rubies, but only Sri Lanka has produced rubies and sapphires in such large sizes for such a long period of time. All varieties are found here, including some, such as the padparadscha, for which Sri Lanka is the premier locality.

The Maidens of Sigiriya. Two of the jewel-bedecked ladies at Sigiriya, Sri Lanka. These paintings are believed to date from about the 5th to 6th centuries AD.



A PERFECT MATCH

Pairs and Suites

WHEN A FINE GEM IS FOUND, its value can be multiplied if paired with another gem (or gems) of similar appearance, shape, cut or size. If the individuals that make up the set are hard to find and of high quality, the matched set is always more valuable than the individual stones on their own.

The multiplication factor increases greatly with the size and rarity of the gems in question. When it comes to untreated ruby, anything above a carat that matches is unusual. When the size of such stones exceeds two carats, the rarity factor becomes unbelievable. Don't believe it? Try to find two untreated rubies in any collection anywhere in the world that truly match in terms of cut, shape, size and appearance. Good luck!

Thus when we judge pairs and even suites, we must be far more generous. The finest qualities will almost never be found in multiples. Almost.

When it comes to pairs and sets, a number of decisions must be made. There is a basic conflict between business and beauty. Striking the balance is key to making money. But occasionally someone has the vision to throw caution aside and reach for that which is most beautiful, creating pieces that are a marvel to behold.



Sweet Suite. This set of sapphires from Rock Creek, Montana (USA) is precisely cut so each gem matches in shape and proportions..

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Wheels of Light. Superb matching and craftsmanship produce a sum greater than the parts.

ON COLOR

The sense of sight is indeed the highest bodily privilege, the purest physical pleasure, which man has derived from his creator.

– Sydney Smith

PERHAPS no aspect of a precious stone's beauty is more subjective than that of color, which is why novices commonly ask: "What color is best." The correct answer is quite simple: "The best color is the one you find most attractive."

This is not what some want to hear. They yearn for a plot charting their way to heaven (à la diamond's D, E, F...), or a simple statement that "the color of this stone is better than that one" while not understanding that such a judgment is entirely arbitrary.



Painting with light. Instead of asking what color I am, why not ask if you find my palette pleasing?

At Lotus, we appreciate the science of color, and willingly use it. But the notion that a faceted gem possesses a single "color" can be disproved by simple observation.

Faceted stones present a three-dimensional mosaic made up of myriad colors, some bright, some dark, some intense and others dull. Each of these colors changes the moment the eye, gem or light moves. Thus to truly describe the appearance of a faceted gem, one would have to describe hundreds of colors, depending on the light source, viewing angle, background and even the size of the viewer's head (which blocks some light). In essence, gems are like miniature paintings with light as the brush on a canvas that formed millions of years before.

The colors of gems are better described in general terms for the simple reason that increasing specificity implies some higher knowledge of what an individual finds attractive and despite our best efforts, we are still not mind readers. Similar to the appreciation of fine art, one cannot exclude the feelings, experiences and sensibilities of the judge.

As a result, Lotus color descriptions are of a dual nature, expressing both scientific rigor (hue position, tone, saturation) and artistic flair. But we do not attempt to suggest one color is more attractive than another. That is a judgment that only the buyer can and should make.

CLARIFYING CLARITY

CLARITY REPRESENTS ONE of the most difficult and simultaneously simple concepts involved with the assessment of precious stones. Gemology books will tell you clarity is judged by the size, number, color, position and nature of inclusions. Obviously there are an infinite number of possibilities.

Allow us to simplify. Inclusions that weaken a gem are the least desirable. This includes cleavages, fissures, cracks – any form of break that might expand with time. Ruby and sapphire are quite tough, so a shallow break is not so bad, but one should be careful with those that penetrate deeply into a gem.

And the rest? Let's reduce them to a single word – Distraction. The more distracting an inclusion, the more it hurts a gem. Imagine a picture of a smiling man or woman. A missing tooth at the back of the mouth is no problem; a missing front lower tooth is less desirable. The worst would be a missing top front tooth.

Gems are no different. When you evaluate a prospective purchase for clarity, concentrate on the distraction level. You can live with inclusions that are difficult to see. Those that are instantly obvious will probably fail your distraction test.

There are many examples where inclusions actually improve a gem. Take for instance a Kashmir sapphire. These often contain extremely small clouds of "silk" that scatter light across the stone. The result is a softness that envelopes all like a sticky blue blanket, banishing darkness with that bluest of blues. The extremely fine silk in Kashmir stones is just enough to exile the night, but not enough to materially affect transparency.

The same can occasionally be seen in sapphires and rubies from other locales, too. Note that this is a direct contradiction of the laws of diamond grading – here we have inclusions contributing in a major way to the beauty of a gem.

One final note on clarity. Unlike diamonds, the clarity of sapphires is always judged with the naked eye.

ON SAPPHIRE

azure and more...

"Oh, darkly, deeply, beautifully blue."

—Lord Byron

Millions of years in the making, sapphire is one of the most valuable gems, prized for its blue color. Despite Lord Byron's sentiments, sapphire doesn't need to be blue to be beautiful, with pastel to hot pinks, yellows, greens, oranges, purples and the rare padparadscha all being part of sapphire's color palette. These other hues are often referred to as *fancy sapphires*. In fact, sapphire comes in every color but red, because a red sapphire would be a ruby; both are the same mineral, corundum.

The most sought-after color of fancy sapphire is the rare and beautiful *padparadscha*, a pink-orange marriage of the pink of a lotus flower with the red-orange of a tropical sunset. Found mostly in Sri Lanka, these ultra-rare stones are among the most coveted gems in the world.

Deriving its name from the Latin word *sapphirus*, meaning blue, sapphires are often referred to as the "gem of the heavens." The ancient Persians thought the earth rested on a giant sapphire, whose reflection gave the sky its color.

Sapphires are thought to bring peace, joy and wisdom to their owners. The ancient Sinhalese believed the powers of wisdom were contained within sapphires and that, when the wearer of a sapphire faced challenges, the gem's power would bring forth a solution.

In India it was thought that a sapphire immersed in water formed an elixir that could cure the bite of scorpions and snakes. Alternatively, if it were worn as a talisman pendant, it would protect the wearer against evil spirits.

The original *true blue*, sapphire is the gem of fidelity and of the soul. In ancient times, the gift of a sapphire was a pledge of trust, honesty, purity, and loyalty. This tradition makes sapphire a popular choice for engagement rings.

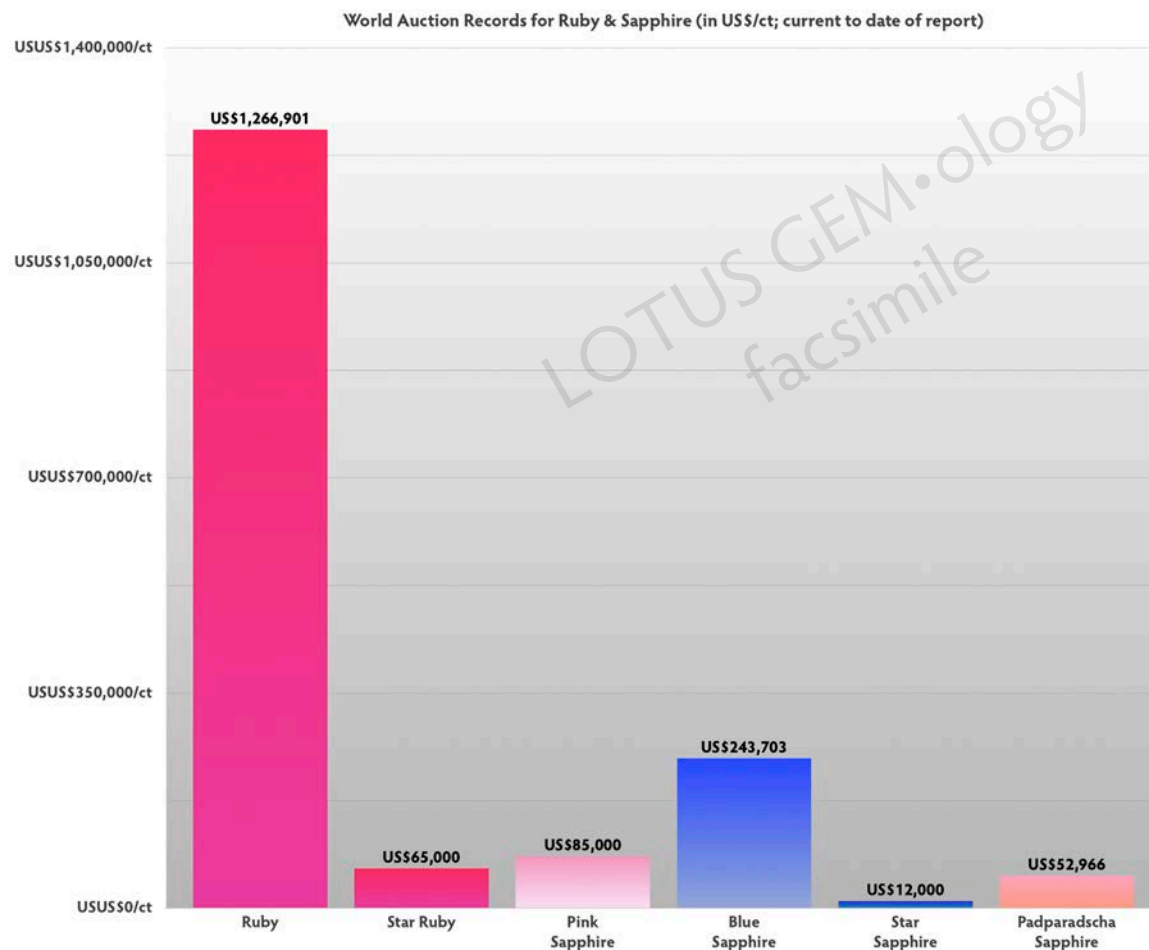
Certainly the British royal family also believes in the power of sapphire. In 1981, when Lady Diana became engaged to Prince Charles, her ring was a fine sapphire. And when her son, William, proposed to Kate Middleton in 2012, he gifted her the same sapphire ring once worn by his mother.



Sapphire – A Cornucopia of Colors. Like snowflakes, each sapphire is unique.

ON PRICES

auction records



THOUSANDS OF TIMES more rare than diamond, ruby and sapphire are among the world's most expensive gems. But like all gem materials, they are found in a number of qualities and across a large range of prices.

Historically, sapphire prices are about a quarter the price of ruby, but this fluctuates from time to time. While even a five-carat ruby of quality is extraordinarily rare, fine sapphires of more than 100 carats are known.

The chart shown here shows prices based mostly world auction records for ruby and sapphire. Note that these do not necessarily represent the highest prices paid; the finest gems often trade hands in private sales at prices above the auction market. We reference them because the auction market is an open reflection of the world gem market. Unlike real estate, gems can and do travel, and therefore have a worldwide value. While auction prices do not always accurately reflect the market (due to bidding wars, etc.), they are public, and thus useful to better understand prices.

caring for your treasure

GEMS ARE AMONG THE MOST durable of nature's creations, but still require care to retain their beauty. Caring for your jewelry is a matter of common sense and simple precaution:

- Always remove your jewelry when engaging in activities that risk impact or exposure to chemicals or heat such as sports or housework.
- Always put jewelry on after using lotions, cosmetics, hair spray or perfumes, not before.
- Never remove your jewelry by pulling on the gems.
- The best way to store jewelry is in the compartments of a jewelry box or in pouches. Store each piece of jewelry separately and necklaces flat so that harder stones don't scratch softer ones. Almost every gem is harder than the metal in which it is set. Gems can scratch one another or the finish on your jewelry if stored carelessly.
- Carefully wipe jewelry with a soft lint-free cloth after wearing to remove oils and salts.
- Clean your jewelry on occasion with a cleaning solution or mechanical cleaner suitable for the gem; use a dish rather than the sink, for if a gem accidentally falls out of the setting, down the drain it goes. When in doubt, just use warm soapy water and a soft toothbrush.

When it comes to caring for your ruby and sapphire jewelry, a bit of warm soapy water and a soft toothbrush is usually all that is needed. After cleaning, simply wipe it dry with a lint-free cloth.

- Think twice before putting gems in an ultrasonic cleaner. Diamonds and rubies and sapphires are generally fine, but other gems may not be. When in doubt, leave it out.
- Opaque gems such as lapis lazuli, turquoise and malachite are porous and may absorb chemicals and soap, discoloring them. Thus they require special care. Never use ultrasonic cleaners, ammonia or chemical solutions. These gem materials should just be gently wiped clean with a moist cloth.
- Opals also require special care. Never use an ultrasonic, never use ammonia, and avoid heat and strong light that can dry out the water in opals.
- Due to their organic nature, gems like pearls, coral and amber are both soft and porous. Thus they should be simply wiped clean with a moist cloth. Be careful about chemicals in hairspray, cosmetics, or perfume; over time they can damage pearls in particular.
- Stones that have a Mohs hardness of 7 or less are subject to scratching; harder stones are less susceptible, but still subject to chipping and fracture.



ABOUT LOTUS

our philosophy

LOTUS GEMOLOGY BEGINS WITH a simple idea – beauty is the principle source of attraction for precious stones. Thus it should also be the major focus of gemology. In other words, the gem is the most important part of GEM•ology.

We operate from a base of over 90 years of collective experience in the study, purchase, sale and appreciation of precious stones. Over time, we have come to realize that gemology is not simply counting atoms. Science is a method of organizing knowledge such that it can be rationally explained and reliably tested. And yet today's science cannot accurately explain or test certain phenomena. Which rainbow is the prettiest, what painting speaks to you, which person do you find most attractive? These are personal choices that can never be reduced to a simple set of measurements, anymore than the beauty of a sunset can be expressed by formula.

Rest assured, we are not Luddites. We not only appreciate science, but also use it daily. At the same time, we recognize that many parts of the

human experience extend into realms beyond the ability of science explain or test. Thus the gemology at Lotus is wide, including not just science, but also weaving into the mix history, culture, art and travel. We do this in the belief that these factors play important roles in how humans perceive desirability and value.

Precious stones are among the most compelling examples of Mother Nature's artistic genius. Our lives have been enriched beyond measure by our involvement with these gifts of nature and we believe if we characterize them with the appropriate reverence and care, we can open this magical world to others. This is our goal. The translation of the intangibles of rarity and aesthetic beauty is our strength.

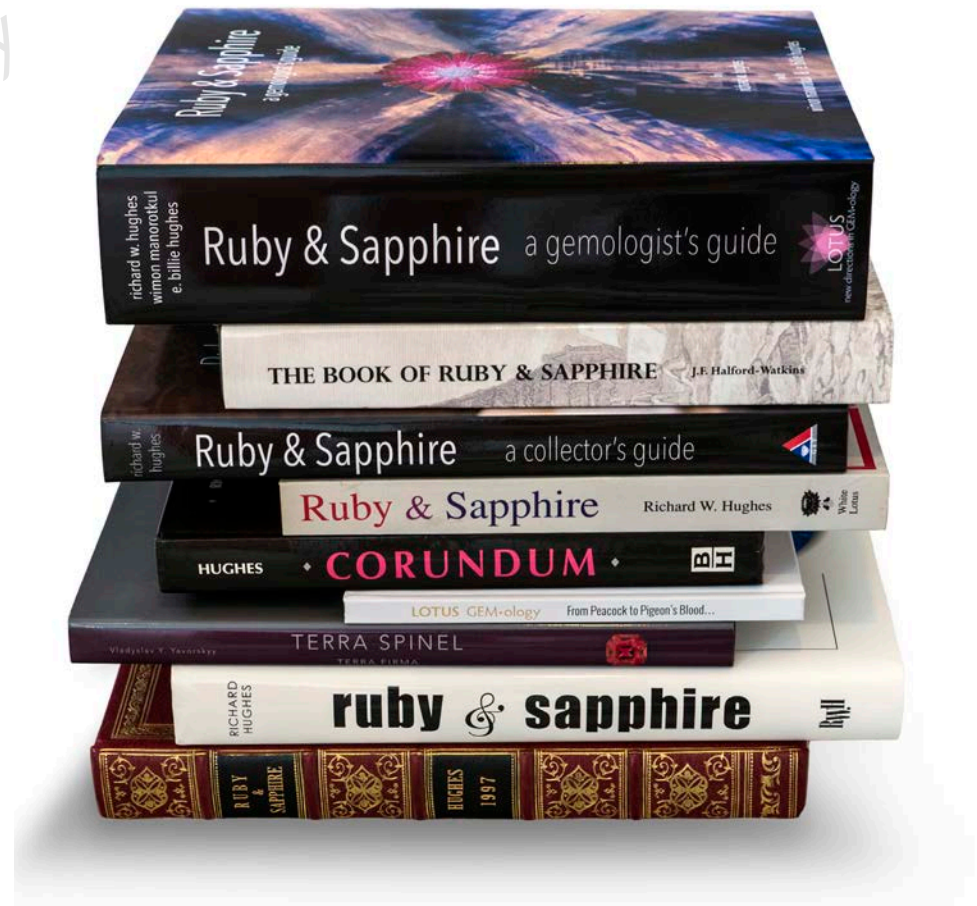
Finally, like a small French restaurant, we believe that crafting a fine meal takes time and individual care; thus our seating is limited. But we are confident the result will be something special, just like these precious treasures we have the pleasure of working with.

SUBSTANCE

Classic Books by Lotus Gemology's Richard Hughes

WITH OVER 90 years of collective experience, the Lotus team has authored more than 200 papers on various aspects of gemology. We did not simply write the book on ruby, sapphire and spinel, we wrote the books, a collective body of work unsurpassed on the subject. In addition, we have designed, authored and edited other books on precious stones.

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ON ENHANCEMENTS

Lotus Enhancement Codes

THE ENDURING VALUE of precious stones is a result of their beauty, durability and rarity. Due to this rarity, humans have created imitations (such as glass) and fully synthetic counterparts of natural gems. They have also treated natural gems to make them more valuable. Certain enhancements have been practiced thousands of years; others result from technological advances of the modern age. Please note:

- Enhancements are a basic part of the finishing process for most gems today. While unenhanced gems are the most sought-after, their tremendous rarity and high prices put them out of reach of all but the wealthiest of buyers.
- The marketplace sets the values of both natural and enhanced gems.

Because enhancements impact value, wherever possible, Lotus Gemology provides information on any/all treatments which are detected. Our approach is to give our customers the same information we would want when purchasing a gem.

No Enhancement	Explanation		Market Frequency	General Stability, Care & Handling
No indications of heating/treatment	No treatment whatsoever has been detected in this gem.		Less common	Excellent; no special care required
Enhancement	Code	Purpose	Market Frequency	General Stability, Care & Handling
Heat	H	Improve color and/or clarity	Common	Excellent; no special care needed
Heat + Fissure Healing	H-FH	Improve color/clarity and heal fissures	Common	Excellent; no special care needed
Heat + Diffusion of external coloring agents	H-D	Improve color/clarity and/or add asterism	Less common	Good to fair; recutting may produce loss of color or star
Heat + Glass Cavity/ Fissure Filling	H-GF*	Improve color/clarity and hide surface cavities	Less common	Good to fair; filler may deteriorate with time, causing change in appearance
Irradiation	IR	Add yellow color	Rare	Poor; fades with exposure to light
Fissure Filling with colorless Oil/resin	FF-O*	Improve clarity and color	Less common	Poor; filler may deteriorate with time, causing change in appearance
Fissure Filling with Dyed Filler	FF-DF*	Improve color and/or clarity	Less common	Poor; filler may deteriorate with time, causing change in appearance
Coating	C	Improve color	Rare	Poor; coating may scratch or rub off
Lead Glass-type Hybrid	LGH	Improve clarity and color	Common	Poor; filler may deteriorate with time, causing change in appearance and durability

* Certain enhancements are rated for extent, on a 1–3 scale of Minor → Moderate → Significant.

Ceylon Chefs. Traditional heat treatment of ruby at Ratnapura, Sri Lanka.



TERMS OF REFERENCE

important notes

limitations

LOTUS GEMOLOGY CO. LTD. provides its gem reports for a relatively small fee only because they are subject to the following liability limitations:

- All limitations apply to the client for whom the report is prepared and to any other persons to whom the report may be distributed, shown or transferred.
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- Each report contains a description of the article tested based upon tests and techniques used by Lotus at the time of examination. Gemstones can be enhanced at any time after leaving our premises. If there are doubts about an item's current condition, please submit it for rechecking.

origin opinions

WHEN AND WHERE THE EVIDENCE warrants, Lotus issues an opinion regarding the probable geographic origin of the gem tested. Origin opinions are given solely at the discretion of Lotus. Clients should be aware that differences in opinion between one lab and another might arise. This is because the geologic conditions in one place sometimes overlap with similar conditions in other localities.

Even in laboratories possessing millions of dollars of equipment, the most important evidence for origin determination is generally collected via the simple gemological microscope. It is the experience of the gemologist with the microscope that largely determines the accuracy of origin reports.

In short, origin determination is not an exact science, and depends greatly on the experience of the individual gemologists doing the testing. The gemologists at Lotus have been involved with precious stones for many decades, including visits to many of the major deposit around the world.

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